

EXPEDITED PROCEDURE - EXAMINING GROUP 2811

S/N 09/810005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Zhongze Wang et al.

Examiner: Samuel A Gebremariam

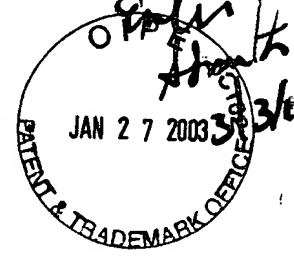
Serial No.: 09/810005

Group Art Unit: 2811

Filed: March 16, 2001

Docket No.: 303.747US1

Title: METHOD TO REDUCE TRANSISTOR CHANNEL LENGTH USING SDOX



AMENDMENT & RESPONSE UNDER 37 C.F.R. § 1.116

Box AF  
Commissioner for Patents  
Washington, D.C. 20231

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TECHNOLOGY CENTER 2800

In response to the final Office Action mailed November 21, 2002, please amend the application as follows:

IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect amendment of previously pending claims 1, 4, 7, 10, 14, 17, 21, 24, 27, 28, 31, 35, 38, 41, 42, 45, and 54. The specific amendments to individual claims are detailed in the following marked up set of claims.

1. (Twice amended) A method of reducing a channel length in a transistor, comprising:  
forming a gate dielectric layer on a semiconductor substrate;  
coupling a barrier layer to the gate dielectric layer, wherein the barrier layer prevents oxide undergrowth;  
forming a gate on top of the barrier layer, the gate having sides, and an effective channel length defined by the sides and an amount of overlap between the sides of the gate and a pair of source/drain regions; and  
oxidizing the gate with sides of the gate dielectric exposed, wherein a portion of the sides of the gate are converted to an oxide and an effective channel length of the gate is reduced.